Ezy-FLASH Pro
User Manual

:: Subaru 2001-2010

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EZY-FLASH PRO USER MANUAL

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IMPORTANT SAEFTY INFORMATION

***** !SAFETY WARNING! *****

The Ezy-FLASH Pro must NEVER be used by the driver while the vehicle is in motion!

***** !SAFETY WARNING! *****

NEVER drive your vehicle with any cables connected (including Ezy-FLASH Pro cables) that may interfere with vehicle controls.

WARNING: VEHICLE WARRANTY

Reflashing your vehicle with the Ezy-FLASH Pro unit may void all or part of your manufacturer's warranty. Other than product quality guarantee, there are no guarantees with the Ezy-FLASH Pro, either express or implied by FlashTorque or any Ezy-FLASH Pro dealers . The user accepts all risks and responsibilities when using the Ezy-FLASH Pro.

WARNING: BATTERY

Ensure your vehicle battery is fully charged and its condition is good before beginning any reflashing process, including changing maps, locking, and unlocking the Ezy-FLASH Pro.

Reflashing with insufficient battery energy may cause a reflash error, which may damage your ECU and prevent your vehicle from starting. [2]

WARNING: REFLASHING

Do not disturb the vehicle, cables, or ECU during the reflashing process, including changing maps, locking, and unlocking the Ezy-FLASH Pro.

Interrupting the reflash process may cause a reflash error, which may damage your ECU and prevent your vehicle from starting. [2]

WARNING: REPAIRS

Do not attempt any repairs on the Ezy-FLASH Pro unit. No user-serviceable parts inside.

In the unlikely event of an Ezy-FLASH Pro device failure, contact the place of purchase and return the unit to them for repairs.

[2] ECUs that are damaged through a failed reflash are repairable by FlashTorque and selected service centres. Fees apply.

PRODUCT INFORMATION

Congratulations on the purchase of the Ezy-FLASH Pro product! It will provide you with tangible benefits in power and economy when used with your vehicle. [1]

Ezy-FLASH Pro is primarily a device for delivering tuning programs into your vehicle's ECU. However it is also capable of reading and clearing Diagnostic Trouble Codes (DTCs) and viewing vehicle data, either live / in real-time or stored for detailed analysis later. This makes Ezy-FLASH Pro a very useful all-round automotive tool. Additional features can be accessed through online firmware updates.

What's In The Box

The Ezy-FLASH Pro retail box should come with the items you see below. If any items are missing, contact the company you purchased it from.

Ezy-FLASH Pro unit

OBDII Cable

USB Cable

Warranty Card & Quick-Start Guide

CD: Ezy-FLASH Pro Software

Optional Accessories (not included with all models):

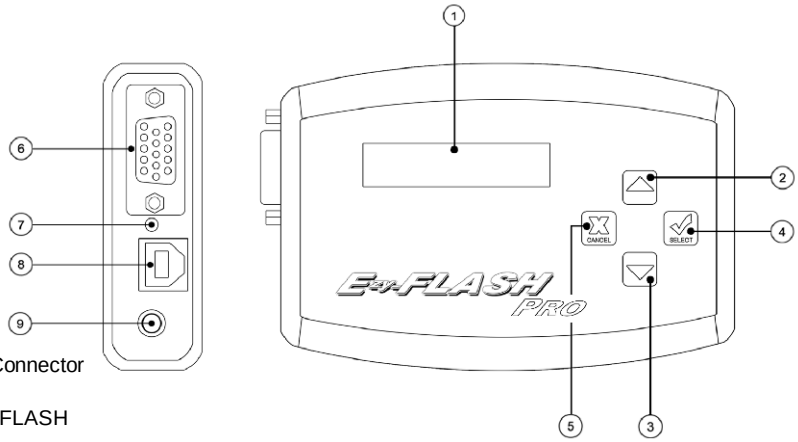
Programming Voltage Jumper Blocks
(Subaru non-DBW only)

Test Mode Switch Cable Assembly
(Subaru 01-07 only)

Test Mode Cable
(Mitsubishi EVO 7/8/9 only)

[1] Supported vehicles only. Benefits depend on tuning program selected, driving style, fuel used, vehicle modifications, and environmental conditions.

Ezy-FLASH Pro



1. Display Screen Backlit Blue LCD
2. Scroll Up: Menu Navigation
3. Scroll Down: Menu Navigation
4. Select / Yes / Accept: Menu Navigation
5. Cancel / No / Back: Menu Navigation
6. OBDII Connector: Diagnostic / Reflash Connector
7. Power Indicator: Power available to Ezy-FLASH
8. USB Connector: Connects to PC for preloading programs / firmware updates
9. Programming Connector: Used for Mitsubishi applications for program reflash

Navigating Ezy-FLASH Pro Menus

The Ezy-FLASH Pro menus are straightforward to use and mostly self-explanatory. Generally:

- and buttons are for scrolling through menu options
- performs yes / accept / ok functions and selects menu options
- performs no / back / cancel / functions and navigates up through menus (back)

Hint icons appear at the far right edge of the screen to indicate which buttons are available at that time. The common Hint icon layouts are:

User can press Select or Cancel (Yes or No)

User can press any button
(Up, Down, Select, Cancel)

There is one layout that requires more explanation:

Multi-page text scrolling. This is for when text is too large to fit on the 2 LCD lines and must be viewed a page at a time.
Pressing Select or Cancel will exit from a multi-page text block.
If the text is a question that requires a user response, 'Select' and 'Cancel' correspond to a 'Yes' or 'No' response.
In this document, this symbol indicates multi-page scrolling.

First Page (scroll down only)

Middle Pages (scroll up or down)

Last Page (scroll up only)

When no Hint icons are present, the Ezy-FLASH Pro is busy performing an action and requires no user interaction (unless specifically stated by the Ezy-FLASH Pro).

SUPPORTED VEHICLES

Ezy-FLASH Pro type

Subaru 2001-2010 (Denso ECUs)

supports the following specific vehicle types with OBDII communications:

Make	Model	Model Year	Control
Subaru	WRX	MY01-10	TC, DBW
Subaru	WRX STi	MY01-10	TC, DBW
Subaru	Forester XT	MY04-10	TC, DBW

Ezy-FLASH Pro units sold in Australia by FlashTorque support Australian models only.

ABOUT MAPS AND TUNING

What Are Tuning Maps?

Tuning maps are tables of numbers that describe to the ECU (Engine Control Unit computer) how to run the engine. Maps control many parameters, for example:

- Fuel delivery
- Ignition timing
- Turbo boost pressure
- Intake and exhaust cam timing
- Throttle mapping (how the accelerator pedal affects driving)
- Responses to engine detonation (pinging)
- Corrections for ambient conditions, such as pressure and temperature

By changing the data in the tuning maps, the engine can typically be made to run more safely, with better economy, more torque (and therefore power), and with more responsiveness[3]. Other parameters can be modified also, such as rev and speed limits. Performance can be *decreased* as well, if desired.

On some vehicles with automatic or sequential shift transmissions also controlled by the ECU, shifting behaviour can also be modified using maps in the ECU's program.

The art of precisely and correctly altering maps is called *Tuning* (not to be confused with a 'Tune-up', which is the loosely applied name for a mechanical / lube service). In modern vehicles tuning is a complex task, as there are many maps involved, and many inter-relate. There is a significant amount of research and development involved in making tuning possible.

After maps have been tuned, they must be programmed into the ECU for them to take effect. This process is called *reflashing*. Usually, only the portion of the ECU's control program that contains the maps needs to be reflahsed– not the entire program. One of the primary functions of the Ezy-FLASH Pro is delivering various tuning maps into the ECU via reflashing.

The word 'reflashing' comes about because the memory that is reprogrammed in the ECU is most often Flash memory.

[3] The degree of change depends on many physical attributes, including the engine type, throttle control type (cable or DBW), fuel used, vehicle modifications, turbocharger size, etc.

Where Do I Get Tuning Maps?

You get a whole set of tuning maps included when you purchase the Ezy-FLASH Pro [4] product. Exactly which ones you get depend on the vehicle type, the supplier, and the tune package you purchase. Usually you will get at least the following maps bundled with your Ezy-FLASH Pro:

- Factory (unmodified tune)
- Anti-theft program (car will not start)
- Valet (low rev limit, low speed limit)
- Limited (medium performance, rev and speed limited)
- Economy (leaner fuel mixture, low boost)
- High performance (standard car, premium fuel)
- High performance (standard car + exhaust, premium fuel)

Specialist tunes can be made by any engine tuning company using the Ezy-FLASH Pro product, given support from FlashTorque. Usually this will involve running the car on a chassis dynamometer, inspecting the resulting data, and modifying tuning maps to suit. 'Dyno tuning' is a specialty area and usually comes at a significant– but reasonable- cost.

Different Countries, Different Maps

The Ezy-FLASH Pro can communicate with supported vehicle types from all world markets including Japan, North America, Europe, Australia/New Zealand/South Africa, and South America.

The Australian retail version of Ezy-FLASH Pro comes preloaded with a full set of tuning maps to suit the Australian versions of each supported model. Vehicles in different regions usually have different program versions to cater for local variations, such as with emissions and environmental differences. Tuning maps for other regions will be supplied by Ezy-FLASH Pro distributors in your local region.

[4] Retail version only. Trade versions may be supplied with no maps.

GETTING READY TO REFLASH

Check For Updates

The Ezy-FLASH Pro unit is programmed with the latest firmware available at the time of manufacture. It is possible that a newer version is available, and it is recommended that you always use the latest available version.

New versions can be downloaded from **www.ezyflash.com** and uploaded to the Ezy-FLASH Pro using the Tune Manager or Tune Manager Pro software.

NOTE: Some updates require the Ezy-FLASH Pro to be unlocked before updating. If so Tune Manager will inform you. If your Ezy-FLASH Pro is locked to your vehicle, you will need to following the unlocking procedure, later in this User Manual.

It is also possible that some refinements are made to the menu structure from version to version. This may mean that the examples shown in this User Manual do not correlate exactly to your Ezy-FLASH Pro unit.

IMPORTANT: BATTERY WARNING

Ensure your vehicle battery is fully charged and its condition is good before beginning any reflashing process, including changing maps, locking, and unlocking the Ezy-FLASH Pro.

To minimise the power drain from the battery during reflashing operations, we recommend you turn off all accessories, including lights, entertainment systems / radios, fans / air conditioner, etc.

As an extra precaution, an external battery charger may be added to the vehicle, although this is normally unnecessary with a healthy, charged battery.

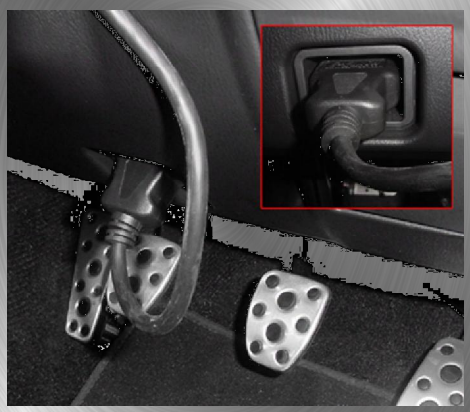
Connect The Ezy-FLASH Pro

a. Turn Ignition OFF.

b. Connect OBDII cable to Ezy-FLASH Pro. Secure the jackscrews.

c. Connect OBDII cable to Vehicle.

The OBDII port on your vehicle is located under the steering wheel, as shown.



d. The Ezy-FLASH Pro will start up immediately and display version and other information.

e. This screen will be displayed if the Ezy-FLASH Pro is locked to a vehicle.

REFLASHING: CHANGING MAPS

Select A Tuning Program

Tuning Programs **are sometimes called** ***Tunes***, ***ROMs***, **or** ***Maps***. **These terms may be used interchangeably in this document.**

The exact text shown on the LCD windows in this document may differ from those on your Ezy-FLASH Pro screen.

a. From Main menu, select "Change Map"

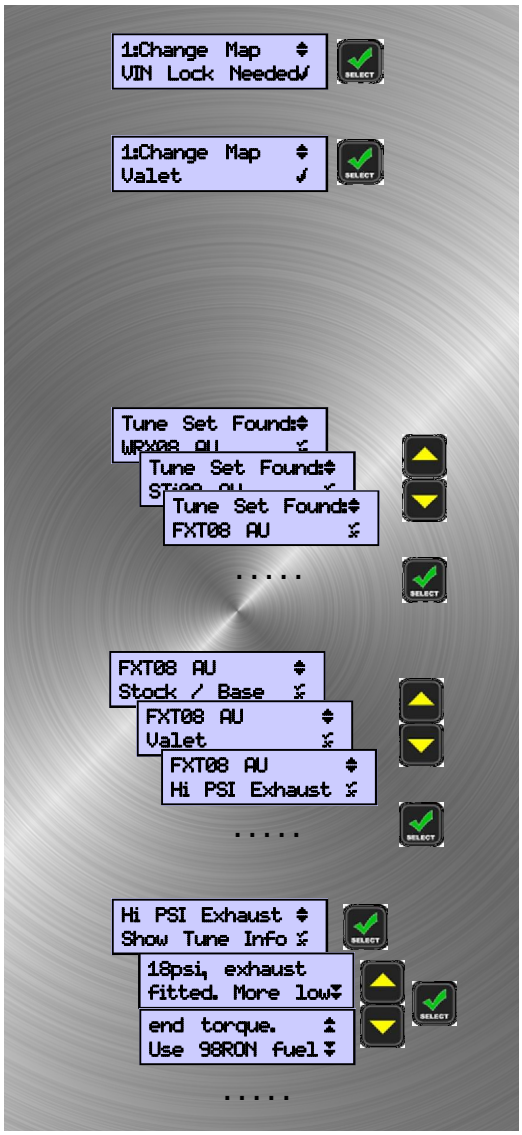
If Ezy-FLASH Pro is not locked:

If Ezy-FLASH Pro is locked:
The second line describes the name of the currently installed tuning map, in this case, 'Valet'.

b. Navigate the menus to select a Tune Set that best matches your vehicle type.

c. Select a Tune from the Tune Set that best suits your vehicle.

d. Press SELECT to view Tune information. Use Up/Down to scroll through pages. Press SELECT when done.

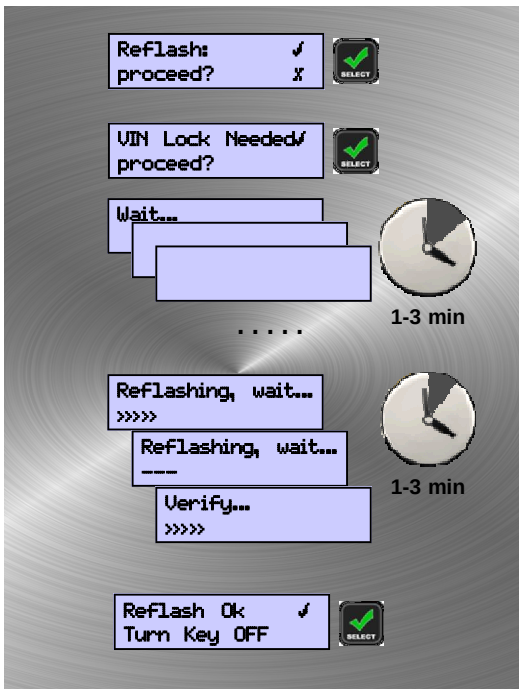


The first time you connect your Ezy-FLASH Pro to your vehicle, the Ezy-FLASH Pro must establish a partnership with your vehicle ("Locking"). During this phase, Ezy-FLASH Pro will query the vehicle type and check that it is compatible with the Tune you have selected. It will then read and verify the maps in the ECU ("Initial Tune"), so your vehicle can be unlocked and fully returned to it's original program if desired.

!! IMPORTANT !!

DO NOT DISTURB the Ezy-FLASH Pro, cables, or vehicle during the reflashing or locking process. Doing so may render your vehicle inoperable. This event is not warranted.

e. Press SELECT to begin reflashing.



IF NOT LOCKED:

Locking will commence. This will take between 1-3 minutes, depending on vehicle type and if unit is being re-locked to the same vehicle.

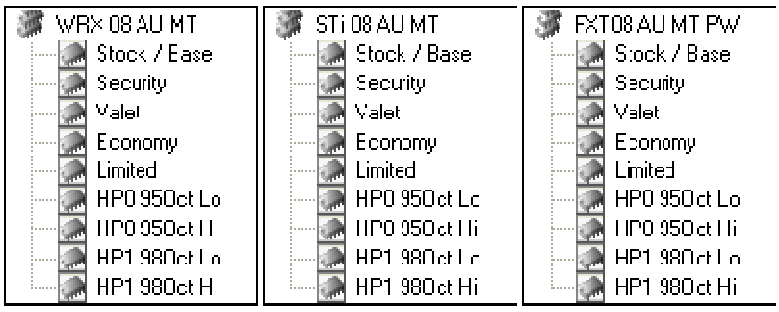
f. Wait for reflashing and verification to occur. This can take between 1 and 3 minutes, depending on the number of tuning changes in the map.

g. Follow on-screen instructions when completed.

NOTE: There may be extra Instructions specific to your vehicle.

How Tunes Are Arranged In the Ezy-FLASH Pro

Tunes for each vehicle type are stored in a *Tune Set*. A Tune Set can store up to 20 unique Tunes that suit that vehicle type.
The following illustration shows Tune Sets for each of 3 vehicle types.



Note that the Tunes are similar in each set, but they apply to their corresponding vehicle types and cannot be interchanged.

TROUBLE CODES

Trouble Codes are also known as “Diagnostic Trouble Codes”, or “DTCs” for short.

Most modern vehicles, including Subaru, store two sets of DTCs: Current and Historic.

- **Current codes indicate problems that the vehicle still experiencing.**
- **Historic codes indicate a problem that has happened in the past, but is not exhibiting itself presently.**

a. Connect the Ezy-FLASH Pro to your vehicle.

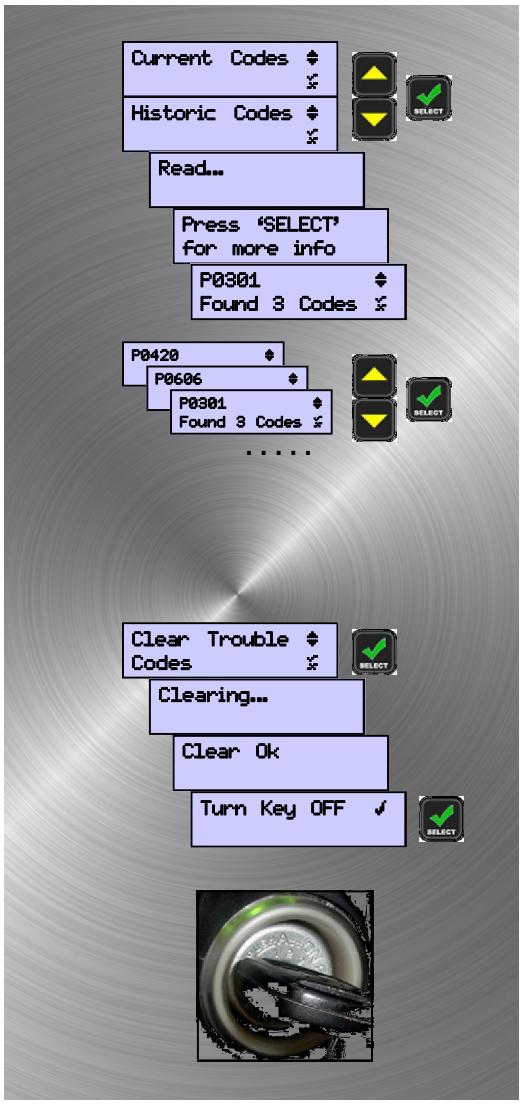
b. From Main menu, select “Read/Clear Codes”

c. From the Codes Menu, select either Read or Clear Trouble Codes, as shown.

READ CODES

i. Select Current or Historic Codes.

ii. Inspect all codes.
Press SELECT to read information on each code.



CLEAR CODES

i. Select
"Clear Trouble Codes"

ii. Turn key off to reset ECU

NOTE: ECU RESET

Subaru vehicles clear historic and current DTCs by resetting the ECU. This has an unfortunate side effect; it also clears all other learned data in the ECU. One of these parameters– the Ignition Advance Multiplier- controls additional timing advance, and when it is reset, your vehicle may temporarily lose significant power (up to around 20 wkW). All of this data will be re-learned over time and your vehicle performance will improve accordingly.

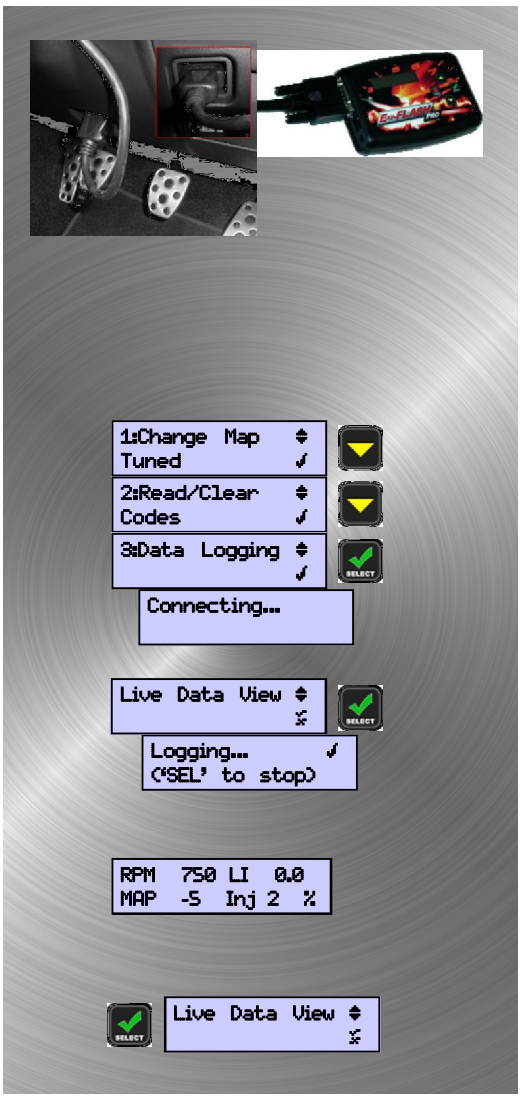
LIVE DATA VIEW

You can view up to 4 parameters at a time live (in real-time) using this feature.

Data logging can be used on any compatible vehicle, not only the 'locked' vehicle.

SAFETY WARNING:
DO NOT view live data while driving on road!!

a. Connect the Ezy-FLASH Pro to your vehicle.



START VEHICLE.

c. From Main menu, select "Data Logging"

d. From the Data Logging Menu, select "Live Data View".

Ezy-FLASH Pro is now displaying live data parameters.

e. Press 'SELECT' to stop viewing Live Data .

i. Data parameters may differ from those shown.
ii. Most versions may support multiple screens of live data. Scroll through screens using UP and DOWN buttons.
Iii. Some parameters may not be available on all vehicle types. In this case alternate parameters may be used, or the allocated space will remain blank.

LIVE DATA VIEW PARAMETERS

Below is a list of parameters that may be available when using Live Data View.
NOTE: Some parameters may not be available for all vehicles.

Acronym	Description
RPM	Engine Speed in Revs Per Minute
LI	Learned Ignition Timing. The amount of timing advance added by the ECU's learning table to the base timing. Negative values retard timing. (°)
KC	Knock Correction Advance. Equivalent to Learned Ignition Timing (°)
MAP	Manifold Absolute Pressure
Inj	Injector (1) duty cycle (%)
WGD	Turbo Wastegate Solenoid duty cycle (%)
Ld	Engine Load (relative %)
MAF	Mass Air Flow (grams/second)
AFR	Air/Fuel ratio
AFC	Air/Fuel Correction (%).
AFL	Air/Fuel Learning (%)
Spk	Spark Advance / Ignition Total Timing (° BTDC)
VSS	Vehicle Speed Sensor
TPS	Throttle Position Sensor (%)
APP	Accelerator Pedal Position (%). DBW vehicles only
Vb	Battery voltage
IAT	Intake Air Temperature

Some values are displayed in Metric or Imperial units. Select your preferred Units System from Main Menu option 4, Setup.

DISCLAIMER:

Parameters displayed using Live Data View are for information only. FlashTorque accepts no responsibility for damage arising from inaccurate or misleading parameter data.

DATA LOGGING

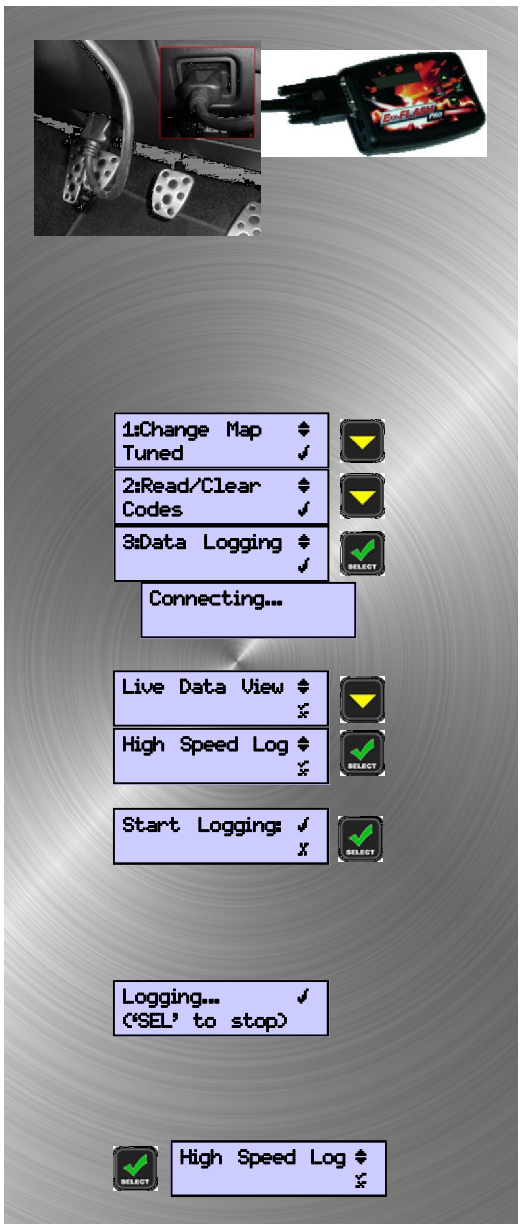
You can select which parameters are logged using High-Speed Data Logging.
Use Tune Manager to set up these parameters.
If no parameters are specified, a default set of parameters will be used.

Data logging can be used on any compatible vehicle, not only the 'locked' vehicle.

a. Connect the Ezy-FLASH Pro to your vehicle.

START VEHICLE.

b. From Main menu, select "Data Logging"



c. From the Data Logging Menu, select "High Speed Log".

d. Press 'SELECT' to start logging.

Ezy-FLASH Pro is now data logging as per the parameters set up in advance.

e. Press 'SELECT' to stop data logging.

Use the Tune Manager application to download and inspect logged data (see next page).

Tune Manager

How Much Data Can Ezy-FLASH Pro Store?
Ezy-FLASH Pro allocates 10Mb for data logging. Depending on the number of parameters selected and the vehicle type, this may give a total continuous logging time of approximately 3 to 20 days.

VIEWING LOGGED DATA

Tune Manager is the configuration application for use with Ezy-FLASH Pro. Use Tune Manager to set up logging parameters, download logging data, and view logging results.

Tune Manager

a. Start Tune Manager.

b. Connect your Ezy-FLASH Pro to the PC using the USB cable supplied.

The first time you connect your Ezy-FLASH Pro, you will have to install drivers for it.

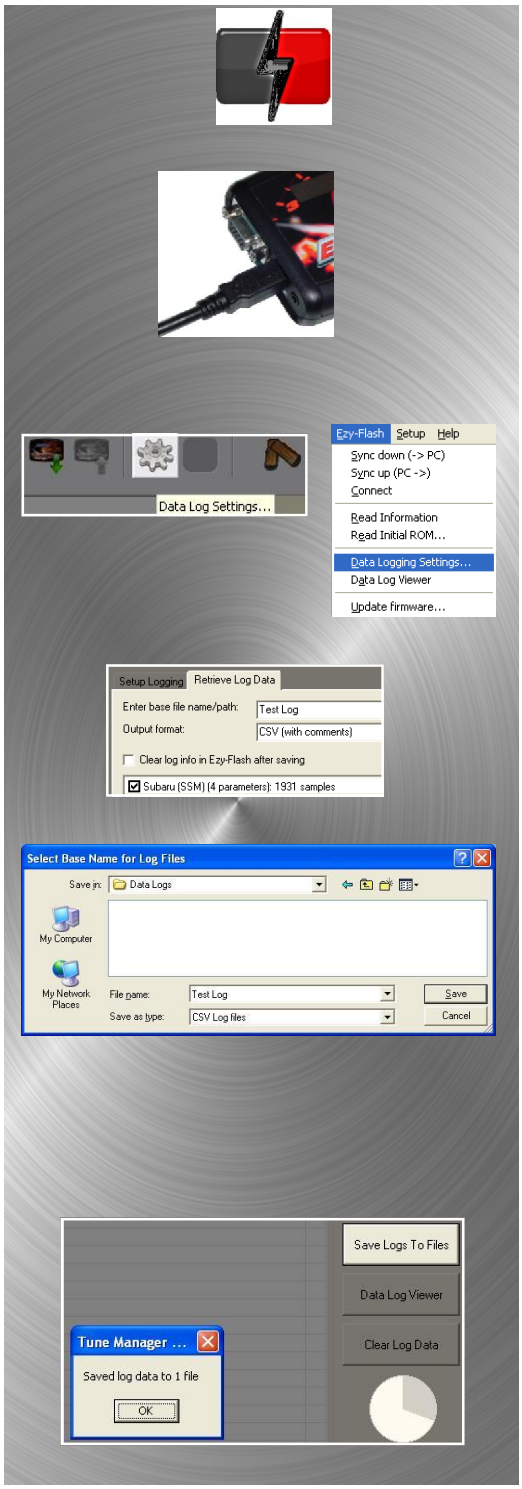
c. Click the "Data Log Settings" button on the toolbar, or select "Data Log Settings" from the "Ezy-FLASH" menu.

d. In the "Retrieve Log Data" tab, a list of available data logs will be displayed. Select the ones you wish to download.

e. Click "Browse" and select a location and base name for the output files.

The base name begins the name of all log files to be saved. These files are numbered sequentially. For example:
Test Log 0001.csv
Test Log 0002.csv
Test Log 0003.csv
……

f. Click "Save Logs To Files" to download the data and save them in numbered files.



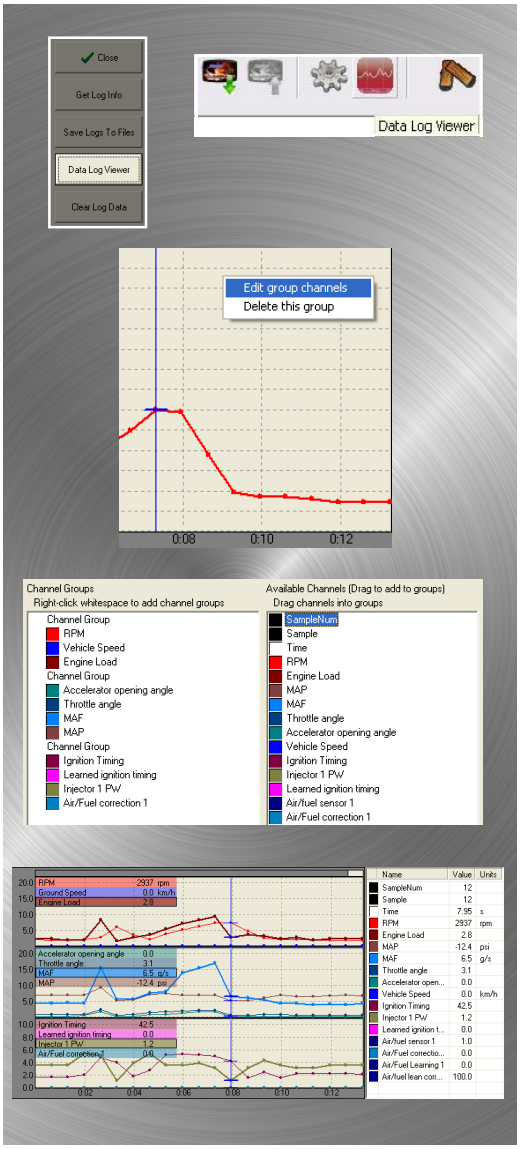
VIEWING LOGGED DATA (CONTINUED)

g. Click “Data Log Viewer” in the Data Logging window, or the Data Log Viewer icon on the main window toolbar.
In the following window, select the log file you wish to view. You may need to navigate to the folder where the files were saved.

h. Right-click in the graph window and select “Edit group channels”.

i. Drag channels into channel groups.
Right-click in the left window area to create new channel groups.
Edit channels to change colours and other display parameters.

j. Use the mouse and/or cursor keys to navigate around and view the logged data.



Some hints:

- **The mouse scroll wheel zooms in and out; hold down CTRL and scroll wheel pans.**
- **Cursor keys zoom and pan; hold down SHIFT for finer resolution..**
- **Click the channel labels to highlight that channel and show its y-axis.**
- **Right-click the channel labels to edit the channel, remove it from the channel group, or temporarily hide it.**
- **Edit the channel and edit its display range and colour if required.**

More detail on how to drive the Log Viewer functions can be found in the Tune Manager Help file, on the enclosed CD.

LICENSING

This section is only relevant for people who wish to use their Ezy-FLASH Pro with multiple vehicles with different ECU styles. An example of when this *may* occur is if the Ezy-FLASH Pro is sold to a user with a different vehicle type or year model.

Ezy-FLASH Pro is supplied with the ability to function fully with any supported Subaru vehicle.

There are 3 Subaru ECU styles supported by Ezy-FLASH Pro. Ezy-FLASH Pro comes pre-installed with a single license which may be applied to either ECU style. This license applies to the first vehicle type the Ezy-FLASH Pro t is locked to. Ezy-FLASH Pro can be used on any other vehicles that have the same ECU style.

Before the Ezy-FLASH Pro can be used on vehicles with a different ECU style, a new license must be installed. Contact your Ezy-FLASH Pro supplier for information on purchasing additional licenses if required.

The 3 supported Subaru ECU Styles belong in the following vehicles groups:

- WRX/STi MY01-05 (Throttle Cable control)
- WRX/STi/FXT/LGT MY04-07 (Drive By Wire, serial reflashing)
- WRX/STi/FXT/LGT MY08-10 (Drive By Wire, CAN reflashing)

The year model overlaps are a guide only, since this varies between sales regions.

ENVIRONMENTAL INFORMATION

Operating and Storage Temperatures

The Ezy-FLASH Pro is designed to operate at between 0°C and 40°C (32°F-104°F) at less than 90% relative humidity, although the display contrast may suffer at the extremes of this temperature range. Using the Ezy-FLASH Pro outside of this temperature range may cause damage to the unit, and/or may cause it to not operate correctly,

Never leave or store the Ezy-FLASH Pro in direct sunlight!!

Recommended storage temperature is –20°C-50°C (0°F-122°F).

Humidity and Moisture

Do not use the Ezy-FLASH Pro if the relative humidity is above 90%. DO NOT allow the Ezy-Flash Pro to get wet!!!

The Ezy-FLASH Pro unit is not air-tight. In very cold or humid environments there is a likelihood that condensation will form inside the unit; you would see this as dew on the display window. It is not advisable to reflash your vehicle when condensation exists inside the unit as this may affect the electronics.

Handling and Storage

Handle the Ezy-FLASH Pro with care. Do not subject the Ezy-FLASH Pro or any of its related parts to excessive shock or vibration, including dropping the unit.

Do not store the Ezy-FLASH Pro where it may be subject to strong vibration, extremes of moisture (> 90% humidity), extreme temperatures, or places that may expose it to direct sunlight.

Cleaning

Clean the outside of the Ezy-FLASH Pro with a soft cloth and mild detergent or cleaning spirit/methylated spirits/denatured alcohol. Do not allow fluid to run inside the case.

Excessive pressure and rubbing may cause damage to the exterior of the Ezy-FLASH Pro.

User Repairs

Do not attempt to open the Ezy-FLASH Pro unit! Doing so will not only void the factory warranty, it also puts the internal circuitry at risk of damage from static shock, among other things.

There are no user-serviceable parts inside.

OPENING THE EZY-FLASH PRO UNIT YOURSELF WILL VOID THE WARRANTY.

TROUBLESHOOTING

Symptom	Probable Causes & Solutions
Cannot connect (locking, reflashing, or unlocking)	➨ Ignition not fully on. Turn key to 'ON'. ➨ Poor connections. Check OBDII cable is connected firmly at both ends, and jackscrews are secured at the Ezy-FLASH Pro end.
Cannot connect (DTCs, data logging)	➨ Ignition not fully on. Turn key to 'ON', or start. ➨ ECU still in reflash mode. Turn key off for a few seconds, then on. ➨ Other: disconnect Ezy-FLASH Pro then reconnect.
Reflash failed	➨ Cables disturbed: **Do not key off**. Check cables and connections and reflash again. ➨ Low battery: **Do not key off**. Attach secondary battery or charger and reflash again. ➨ Corrupt tuning map file. Try a different map.
Vehicle not recognised	➨ Update Ezy-FLASH Pro to latest firmware. ➨ Check the 'Setup' menu; 'Select Vehicle Type' setting should be auto. ➨ Ezy-FLASH Pro not licensed for use with this vehicle type (this may happen when using the Ezy-FLASH Pro on several different vehicle types) (see Page 19- Licensing). Other licenses can be purchased; contact FlashTorque.

WARRANTY

(As per warranty card included in the Ezy-FLASH Pro packaging)

Flashtorque Product Warranty

The benefits provided by this Warranty are in addition to all other rights and remedies in respect of the product which the consumer has under the Trades Practices Act 1974 and/ or any other State and Territory Laws.
The original purchaser of the Flashtorque product is provided with the following Warranty subject to the Warranty Conditions: Flashtorque warrants this product for all parts defective in workmanship or materials for the period of 12 months.

Warranty Conditions

1. This product must be used in accordance with manufacturer's instructions. This Warranty does not apply should the defect or failure of the product be attributable to misuse, abuse, accident or non-observance of manufacturer's instructions on the part of the user. The manufacturer does not accept liability for any direct or consequential loss, damage or other expense caused by or arising out of the use of the product.
2. This Warranty does not cover normal wear and tear. Exhaustible components of the product are included under this Warranty only where there is a defect in workmanship or materials used.
3. This Warranty is immediately void if-
   (i) any serial number or appliance plate is removed or defected;
   (ii) the product has been serviced or otherwise repaired by a person not authorised to do so by FlashTorque or where non-approved replacement parts are made.
4. This product is designed for domestic use only. A limited 90-day Warranty applies to any industrial or commercial use of the product. This product must be connected to the electrical voltage requirements as specified in the ratings label located on the product.
5. This Warranty will only be provided where proof of original purchase is presented, for example original receipt or invoice.
6. FlashTorque may, at its own discretion, replace or repair any defective product. Any parts of the product replaced during repairs or any product replaced remain the property of FlashTorque. In the event of a product being replaced during the Warranty period, the Warranty on the replacement product will expire on the same date as for the Warranty period on the original product which is replaced.

Glossary Of Common Terms

DBW	Drive-By-Wire, where the accelerator pedal is not directly connected to the throttle plate. Instead, the throttle plate angle is controlled electronically by the ECU.
DTC	Diagnostic Trouble Code. DTCs are stored in the vehicle's ECU if it detects a problem in the vehicle system. Each code is unique and corresponds to a specific problem.
Dynamometer	"Dyno". Equipment for measuring power and torque output of a vehicle ("chassis dyno") or an engine ("engine dyno").
ECU	Engine Control Unit. A computer that controls delivery of fuel, timing of spark, and many other parameters to make an engine operate.
Flash	Flash memory. Stores the tuning maps (and other engine control code) in the ECU.
Initial ROM	The control code that existed in your ECU before the Ezy-Flash was introduced.
wkW	Wheel Kilowatts. The power produced at the wheels. This is the power at the flywheel less transmission and drivetrain losses.
Reflash	To reprogram the tuning maps and engine control code in the ECU.
ROM	"Read Only Memory". In this context, ROM describes a computer program that alters the tuning maps in a vehicle. Also called a 'Tune'.
TC	Throttle Cable. 'Conventional' throttle control where accelerator pedal is directly connected to the throttle blade using a cable. Opposite to DBW.
TMC	Test Mode Connector. Used to initiate reflash mode in many vehicles.
TMSA	Test Mode Switch Assembly. Provides convenient access to Test Mode Connectors.
Tune	A computer program that alters the tuning maps in a vehicle. Also called a 'ROM'.
Tune Bank	A collection of Tune Sets.
Tune Set	A set of tunes which apply to a single vehicle type.
Tuning Maps	Data tables that describe to the ECU the correct amount of a physical quantity (i.e., fuel, ignition timing, turbo boost pressure) to apply to a vehicle under a predefined set of conditions (e.g., engine speed, engine load, requested throttle / torque, ambient conditions, etc).

Support Contact Information

FlashTorque Pty Ltd (Australia)
22/41 Lawrence Drive
Nerang Qld 4211
Australia
Ph +61 7 55783181
support@flashtorque.com.au

FlashTorque PTY LTD

www.ezyflash.com

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